

WHAT IS CLAIMED IS:

1. A multi-band oscillator comprising:

a plurality of pairs of first and second oscillation
5 transistors, which are differentially connected and which are
provided independently for each oscillation frequency band;
and

a feedback capacitor element that connects the mutual
collector and base of each of said pairs of oscillation
10 transistors,

wherein the collectors of the first oscillation
transistors are connected to one another,

the collectors of the second oscillation transistors are
connected to one another,

15 a plurality of capacitor elements for switching the
oscillation frequency band in such a manner as to correspond
to each of said pairs of the oscillation transistor are
connected via switching means connected in series thereto
between the collectors of said first oscillation transistors
20 and the collectors of said second oscillation transistors,
and

only one pair of oscillation transistors corresponding
to said capacitor element connected to said switching means
which is turned on is placed in an operating condition.

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2. A multi-band oscillator according to Claim 1,
wherein the emitters of each of said pairs of the oscillation
transistors are connected to the corresponding constant-

current sources, and the constant-current source connected to said pair of oscillation transistors which are placed in an operating condition are turned on.

5 3. A multi-band oscillator according to Claim 1,
wherein said switching means comprises a field-effect
transistor, the drain of said field-effect transistor is
connected to one of said collectors, and the source thereof
is connected to said capacitor element and is grounded via a
10 resistor.

4. A multi-band oscillator according to Claim 2,
wherein the higher the oscillation frequency, the larger the
electrical current of the corresponding constant-current
15 source is made for a pair of oscillation transistors which
are placed in an operating condition.